

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of : Elizabeth K. Barber  
Serial No. : Not yet assigned  
Filed : September 28, 2001  
Title : **GENE EXPRESSION CONTROL DNA  
ELEMENT AND ASSOCIATED PROTEIN**  
Group Art Unit : Not yet assigned  
Examiner : Not yet assigned

#14  
Plunkett  
3/2/03



INFORMATION DISCLOSURE STATEMENT

Commissioner for Patents  
Washington, D.C. 20231

Sir:

This statement is submitted in compliance with 37 CFR 1.56.

A list of patent(s) and/or publications is set forth on the attached PTO-1449. A copy of each item listed is enclosed.

Any additional fees required for the proper filing of this Information Disclosure Statement should be withdrawn from the Jones, Day, Reavis & Pogue Deposit Account No. 50-1432, Ref. 896034-605001.

Respectfully submitted,

Barbara E. Arndt, Ph.D.

Reg. No. 37,768

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Date of Deposit September 28, 2001

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896034605001SERIAL NO.  
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STATEMENT BY APPLICANT

## APPLICANT

Elizabeth K. Barber

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## U.S. PATENT DOCUMENTS

EXAMINER INITIAL	DOCUMENT NUMBER	DATE	NAME	CLASS/SUBCLASS	FILING DATE
	5,239,060	08/93	Kunkel et al.	530/350	
	5,430,129	07/95	Campbell et al.	530/413	
	5,985,846	11/99	Kochanek et al.	514/44	
	5,858,661	01/99	Shiloh	435/6	
	6,011,137	01/00	Pirozzi et al.	530/324	
	6,063,576	05/00	Keating et al.	435/6	
	6,083,750	07/00	Chamberlain et al.	435/369	
	6,087,108	07/00	Bandman et al.	435/6	
	6,087,111	07/00	Tinsley et al.	435/6	

## FOREIGN PATENT DOCUMENTS

EXAMINER INITIAL	DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION	
						YES	NO
	WO 97/22696	06/97	PCT				

EXAMINER INITIAL	OTHER DOCUMENTS	(Including Author, Title, Date, Pertinent Pages, Etc.)
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Ahn, A. H., and Kunkel, L. (1993). The structural and functional diversity of dystrophin. *Nature Genetics*, 3: 283-291.

Alexander, E. L., and Sanders, S. K. (1977). F(ab')<sub>2</sub> reagents are not required if goat, rather than rabbit, antibodies are used to detect human surface immunoglobulin. *J Immunol*, 119: 1084-1088.

Anderson, S. J., Chou, H. S., and Loh, D. Y. (1988). A conserved sequence in the T-cell receptor beta-chain promoter region. *Proc. Natl. Acad. Sci. USA*, 85: 3551-3554.

Aruffo, A. and B. Seed (1987). Molecular cloning of a CD28 cDNA by a high-efficiency COS cell expression system. *PNAS (USA)* 84: 8573-8577.

Aruffo, A., Stamenkovic, I., Melnick, M., Underhill, C.B., and Seed, B. (1990). CD44 Is the Principal Cell Surface Receptor for Hyaluronate. *Cell*, 61: 1303-1313.

EXAMINER

DATE CONSIDERED

EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

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EXAMINER INITIAL	OTHER DOCUMENTS	(Including Author, Title, Date, Pertinent Pages, Etc.)
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Atkins, J. F., Weiss, R. B., Thompson, S., and Gesteland, R. F. (1991). Towards a genetic dissection of the basis of triplet decoding, and its natural subversion: programmed reading frame shifts and hops. *Annu. Rev. Genet.*, **25**: 201-228.

Ausubel, F. M., Brent, R., Kingston, R.E., Moore, D.D., Seidman, J.G., Smith, J.A., and Struhl, K. (1993). *In* Current Protocols in Molecular Biology, (New York: John Wiley & Sons, Inc.).

Banerji, J., Rusconi, S., and Schaffner, W. (1981). Expression of a  $\beta$  globin gene is enhanced by remote SV40 DNA sequences. *Cell*, **27**: 299-308.

Baranger, A. M. et al. (1995). Mechanism of DNA-binding enhancement by the human T-cell leukaemia virus transactivator Tax. *Nature*, **376**: 606- 608.

Barber, E. K., and Simmons, D.L. (1993). Functional-analysis of the early hematopoietic surface-markers CD33 and CD34. *J. Cell. Biochem.*, **17a**: 346.

Barclay, A. N., Birkeland, M.L., Brown, M.L., Beyers, A.D., Davis, S.J., Somoza, C., and Williams, A.F. (1993). The Leucocyte Antigen Facts Book. 424. Academic Press Limited.

Bass, B. L., and Weintraub, H. (1987). A developmentally regulated activity that unwinds RNA duplexes. *Cell*, **48**: 607-613.

Baumhueter, S., Singer, M.S., Henzel, W., Hemmerich, S., Renz, M., Rosen, S.D., and Lasky, L.A. (1993). Binding of L-Selectin to the Vascular Sialomucin CD34. *Science*, **262**: 436-438.

Bishop, J.M., *Annu. Rev. Biochem.*, **52**: 301-354, 1983

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OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

Blackwood, E.M. and R.N. Eisenman, *Science*, **251**: 1211-1217, 1991

Blake, D. J., Tinsley, J.M., and Davies, K.E. (1994). The emerging family of dystrophin-related proteins. *Tr. in Cell Biol.*, **4**: 19-23.

Braun, R. E. (1990). Temporal translational regulation of the protamine 1 gene during mouse spermatogenesis. *Enzyme*, **44**: 120-128.

Britten, R.J. (1994). Evidence that most human *Alu* sequences were inserted in a process that ceased about 30 million years ago. *Proc. Natl. Acad. Sci.* **91**: 6148-6150.

Bucher, P. (1990). Weight matrix descriptions of four eukaryotic RNA polymerase II promoter elements derived from 502 unrelated promoter sequences. *J. Mol. Biol.*, **212**: 563-578.

Capon, D.J.et al. (1989). Designing CD4 immunoadhesins for AIDS therapy. *Nature* **337**: 525-531.

Chelly, J.et al. (1990). Effect of dystrophin gene deletions on mRNA levels and processing in Duchenne and Becker muscular dystrophies. *Cell* **63**: 1239-1248.

Chelly, J. et al. (1988). Transcription of the dystrophin gene in human muscle and non-muscle tissue. *Nature*, **333**: 858-860.

Chelly, J., Montarras, D., Pinset, C., Berwald, N. Y., Kaplan, J. C., and Kahn, A. (1990). Quantitative estimation of minor mRNAs by cDNA-polymerase chain reaction. Application to dystrophin mRNA in cultured myogenic and brain cells. *Eur. J. Biochem*, **187**: 691-698.

Chirgwin, J. M., Przybyla, A.E., MacDonald, R.J., and Rutter, W.J. (1979). Isolation of biologically active ribonucleic acid from sources enriched in ribonuclease. *Biochemistry*, **18**: 5294 - 5299.

EXAMINER

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Church, G.M., and Gilbert, W. (1984). Genomic Sequencing. *Proc. Natl. Acad. Sci. USA*, **81**: 1991-1995.

Claros, M. G., and von Heijne, G. (1994). TopPred II: an improved software for membrane protein structure predictions. *CABIOS*, **10**: 685-686.

Cole, S. R., Ashman, L. K., and Ey, P. L. (1987). Biotinylation: An Alternative to Radioiodination for the Identification of Cell Surface Antigens in Immunoprecipitates. *Mol. Immunol.*, **24**: 699-705.

Croce, C. M., Erikson, J., Ar-rushdi, A., Aden, D. and Nishikura, K. (1984). Translocated *c-myc* oncogene of Burkitt lymphoma is transcribed in plasma cells and repressed in lymphoblastoid cells. *Proc. Natl. Acad. Sci. USA*, **81**: 3170-3174.

Crocker, P.R. et al. (1994). Sialoadhesin, a macrophage sialic acid binding receptor for haemopoietic cells with 17 immunoglobulin-like domains. *The EMBO Journal* **13**: 4490-4503.

Darnell, J., Lodish, H., and Baltimore, D. (1986). Molecular Cell Biology. 1192. Scientific American Books.

Davidson, N. O. (1993). Apolipoprotein B mRNA editing: a key controlling element targeting fats to proper tissue. *Ann. Med.*, **25**: 539-543.

Dornfeld, K. J., and Livingston, D. M. (1992). Plasmid recombination in a rad52 mutant of *Saccharomyces cerevisiae*. *Genetics*, **131**: 261-276.

Drysdale, C. M., Duenas, E., Jackson, B.M., Reusser, U., Braus, G.H., and Hinnebusch, A.G. (1995). The transcriptional activator GCN4 contains multiple activation domains that are critically dependent on hydrophobic amino acids. *Mol. Cell Biol.*, **15**: 1220-1233.

Dynan, W. S., and Tjian, R. (1983). The promoter-specific transcription factor Sp1 binds to upstream sequences in the SV40 early promoter. *Cell*, **35**: 79-87.

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Eliceiri, B., Labella, T., Hagino, Y., Srivastava, A., Schlessinger, D., Pilia, G., Palmieri, G., and D'Urso, M. (1991). Stable integration and expression in mouse cells of yeast artificial chromosomes harboring human genes. *Proc Natl Acad Sci USA*, **88**: 2179-2183.

Emerson, S. G., Reilly, P., and Cone, R. E. (1979). Differential radiolabelling of lymphocyte membrane alloantigens and immunoglobulins: variation of H<sub>2</sub>O<sub>2</sub> concentration during lactoperoxidase catalyzed cell surface radio-iodination. *J. Immunogenet.*, **6**: 87-97.

Fawcett, J., Holness, C.L., and Simmons, D.L. (1994). Molecular Tools for the Analysis of Cell Adhesion. *Cell Adhesion and Communication*, **2**: 275-285.

Feinberg, A. P., and Vogelstein, B. (1983). A technique for radiolabeling DNA restriction endonuclease fragments to high specific activity. *Analytical Biochemistry*, **132**: 6-13.

Firtel, R. A. (1981). Multigene families encoding actin and tubulin. *Cell*, **24**, 6-7.

Freeman, S. D., Kelm S., Barber, E.K., and Crocker, P.R. (1995). Characterisation of CD33 as a new member of the sialoadhesin family of cell adhesion molecules. *Blood*, **85**: 2005-2012.

Freeman, S.D. et al., *Blood*, **85**: 2005-2012, 1995

Gangopadhyay, S.B., Sherratt, T.G., Heckmatt, J.Z., Dubowitz, V., Miller, G., Shokeir, M., Ray, P.N, Strong, P.N. and Worton, R.G. (1992). Dystrophin in frameshift deletion patients with Becker muscular dystrophy. *Am. J. Hum. Genet.* **51**: 562-570.

Garvin, A. M., Pawar, S., Marth, J. D., and Perlmutter, R. M. (1988). Structure of the murine lck gene and its rearrangement in a murine lymphoma cell line. *Mol. Cell Biol.*, **8**: 3058-3064.

Gellert, M. (1992). Molecular analysis of V(D)J recombination. *Annu. Rev. Genet.*, **22**: 425-446.

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OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

Genetics Computer Group, (G. C. G.) (1991). Program Manual for the GCG Package, Version 7. Genetics Computer Group.

Gerondakis, S., Cory, S., and Adams, J.M. (1984). Translocation of the *myc* cellular oncogene to the immunoglobulin heavy chain locus in murine plasmacytomas is an imprecise reciprocal exchange. *Cell*, **36**: 973-982.

Gluzman, Y. (1981). SV40-transformed simian cells support the replication of early SV40 mutants. *Cell*, **23**: 175-182.

Gorecki, D. C., Monaco, A. P., Derry, J. M., Walker, A. P., Barnard, E. A., and Barnard, P. J. (1992). Expression of four alternative dystrophin transcripts in brain regions regulated by different promoters. *Hum. Mol. Genet*, **1**: 505-510.

Guigo, R., Knudsen, S., Drake N., and Smith, T. (1992). Prediction of Gene Structure. *J.Mol.Biol.*, **226**: 141-157.

Hamada, H., and Kakunaga, T. (1982). Potential Z-DNA forming sequences are highly dispersed in the human genome. *Nature*, **298**: 396-398.

Hames, B. D., and Glover, D.M. (1988). Transcription and Splicing. In *Frontiers in Molecular Biology*, (Oxford: IRL Press), pp. 212.

Hanke, J.H., Hambor, J.E., and Kavathas, P. (1995). Repetitive *Alu* Elements form a Cruciform Structure that Regulates the Function of the Human CD8 alpha T Cell-specific Enhancer. *J. Mol. Biol.*, **246**: 63-73.

Harlow, E., and Lane, D. (1988). *Antibodies: a Laboratory Manual*. 723. Cold Spring Harbor Laboratory.

Hirt, B. (1967). Selective extraction of polyoma DNA from infected mouse cell cultures. *J. Mol. Biol*, **26**: 365-369.

Hnatowich, D. J., Virzi, F., and Rusckowski, M. (1987). Investigations of avidin and biotin for imaging applications. *J. Nucl. Med.*, **28**: 1294-1302.

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---------------------	--

Hollenbaugh, D. et al. (1992). The human T cell antigen gp39, a member of the TNF gene family, is a ligand for the CD40 receptor: expression of a soluble form of gp39 with B cell co-stimulatory activity. *EMBO J.*, **11**: 4313- 4321. 7510.

Honigman, A., Wolf, D., Yaish, S., Falk, H., and Panet, A. (1991). cis Acting RNA sequences control the gag-pol translation readthrough in murine leukemia virus. *Virology*, **183**: 313-319.

Hugnot, J. P. et al. (1992). Distal transcript of the dystrophin gene initiated from an alternative first exon and encoding a 75 kDa protein widely distributed in non-muscle tissues. *Proc. Natl. Acad. Sci. USA*, **89**: 7506-

Jackson, D. G., Buckley, J., and Bell, J. I. (1992). Multiple Variants of the Human Lymphocyte Homing Receptor CD44 Generated by Insertions at a Single Site in the Extracellular Domain. *J. Biol. Chem.*, **267**: 4732-4739.

Jackson, R. J. (1993). Cytoplasmic regulation of mRNA function: the importance of the 3' untranslated region. *Cell*, **74**: 9-14.

Jeang, K. T., and Hayward, G. S. (1983). A cytomegalovirus DNA sequence containing tracts of tandemly repeated CA dinucleotides hybridizes to highly repetitive dispersed elements in mammalian cell genomes. *Mol. Cell. Biol.*, **3**: 1389-1402.

Jennings, M. W., Jones, R. W., Wood, W. G., and Weatherall, D. J. (1985). Analysis of an inversion within the human beta globin gene cluster. *Nucleic Acids Res.*, **13**: 2897-2906.

Jones, R. W., Old, J. M., Trent, R. J., Clegg, J. B., and Weatherall, D. J. (1981). Major rearrangement in the human beta-globin gene cluster. *Nature*, **291**: 39-44.

Kelm, S. et al. (1994). Sialoadhesin, MAG, and CD22 define a new family of sialic acid-dependent adhesion molecules of the immunoglobulin superfamily. *Current Biology*, **4**: 965-972.

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----------	-----------------

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Kienhuis, C. B., Heuvel, J. J., Ross, H. A., Swinkels, L. M., Foekens, J. A., and Benraad, T. J. (1991). Six methods for direct radioiodination of mouse epidermal growth factor compared: effect of nonequivalence in binding behavior between labeled and unlabeled ligand. *Clin Chem.*, 37: 1749-1755.

Koenig, M., Hoffman, E. P., Bertelson, C. J., Monaco, A. P., Feener, C., and Kunkel, L. M. (1987). Complete cloning of the Duchenne muscular dystrophy (DMD) cDNA and preliminary genomic organization of the DMD gene in normal and affected individuals. *Cell*, 50: 509-517.

Koenig, M., Monaco, A. P., and Kunkel, L. M. (1988). The complete sequence of dystrophin predicts a rod-shaped cytoskeletal protein. *Cell*, 53: 219-228.

Kozak, M. (1987). An analysis of 5'-noncoding sequences from 699 vertebrate messenger RNAs. *Nucleic Acids Res.*, 15: 8125-8148.

Kudo, A., and Melchers, F. (1987). A second gene, VpreB in the lambda 5 locus of the mouse, which appears to be selectively expressed in pre-B lymphocytes. *EMBO J.*, 6: 2267-2272.

Kudo, A., Pravtcheva, D., Sakaguchi, N., Ruddle, F. H., and Melchers, F. (1987). Localization of the murine lambda 5 gene on chromosome 16. *Genomics*, 1: 277-279.

Kunkel, L. M., Lalande, M., Monaco, A. P., Flint, A., Middlesworth, W., and Latt, S. A. (1985). Construction of a human X-chromosome-enriched phage library which facilitates analysis of specific loci. *Gene*, 33: 251-258.

Laemmli, U. K. (1970). Cleavage of structural proteins during the assembly of the head of bacteriophage T4. *Nature*, 227: 680-685.

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----------	-----------------

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DATE

COUNTRY

CLASS

SUBCLASS

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YES

NO

EXAMINER

INITIAL

OTHER DOCUMENTS

(Including Author, Title, Date, Pertinent Pages, Etc.)

Landau, N. R., St. John, T., Weissman, I. L., Wolf, S. C., Silverstone, A. E., and Baltimore, D. (1984). Cloning of terminal transferase cDNA by antibody screening. *Proc. Natl. Acad. Sci. USA*, **81**: 5836-5840.

Larin, Z., Monaco, A. P., and Lehrach, H. (1991). Yeast artificial chromosome libraries containing large inserts from mouse and human DNA. *Proc. Natl. Acad. Sci. USA*, **88**: 4123-4127.

Lederfein, D., Levy, Z., Augier, N., Mornet, D., Morris, G., Fuchs, O., Yaffe, D., and Nudel U. (1992). A 71-kilodalton protein is a major product of the Duchenne muscular dystrophy gene in brain and other nonmuscle tissues. *Proc. Natl. Acad. Sci. USA*, **89**: 5346-5350.

Lejeune, S., Huguet, E.L., Hamby, A., Poulson, R. and Haris, A. (1995). *Wnt5a* Cloning, Expression, and Up-regulation in Human Primary Breast Cancers. *Clin. Cancer Res.*, **1**: 215-222.

Lewis, S., Gifford, A., and Baltimore, D. (1985). DNA elements are asymmetrically joined during the site-specific recombination of kappa immunoglobulin genes. *Science*, **228**: 677-85.

Lozzio, C. B., and Lozzio, B.B. (1975). Human Chronic Myelogenous Leukemia Cell-Line With Positive Philadelphia Chromosome. *Blood*, **45**: 321-334.

Majors, J. E., Swanson, R., DeLorbe, W. J., Payne, G. S., Hughes, S. H., Ortiz, S., Quintrell, N., Bishop, J. M., and Varmus, H. E. (1981). DNA intermediates in the replication of retroviruses are structurally (and perhaps functionally) related to transposable elements. *Cold Spring Harb. Symp. Quant. Biol.*, **2**: 731-738.

Matsuoka, M., Nagawa, F., Okazaki, K., Kingsbury, L., Yoshida, K., Muller, U., Larue, D. T., Winer, J. A., and Sakano, H. (1991). Detection of somatic DNA recombination in the transgenic mouse brain. *Science*, **254**: 81-86.

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EXAMINER INITIAL	OTHER DOCUMENTS	(Including Author, Title, Date, Pertinent Pages, Etc.)
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McClintock, B. (1956). Controlling elements and the gene. *Cold Spring Harbor Symposium*, 21: 197-216.

McCourt, P. A. G., Ek, B., Forsberg, N., and Gustafson, S. (1994). Intercellular Adhesion Molecule-1 Is a Cell Surface Receptor for Hyaluronan. *J. Biol. Chem.*, 269: 30081-30084.

Miesfeld, R., Krystal, M., and Arnheim, N. (1981). A member of a new repeated sequence family which is conserved throughout eucaryotic evolution is found between the human  $\delta$ - and  $\beta$ - globin genes. *Nucleic Acids Res.*, 9: 5931-5947.

Monaco, A.P., Bertelson, C.J., Liechti-Gallati, S., Moser, H., Kunkel, L.M. (1988). An explanation for the phenotypic differences between patients bearing partial deletions of the DMD locus. *Genomics*, 2: 90-95.

Monaco, A. P., Walker, A. P., Millwood, I., Larin, Z., and Lehrach, H. (1992). A yeast artificial chromosome contig containing the complete Duchenne muscular dystrophy gene. *Genomics*, 12: 465-473.

Murgola, E. J., Prather, N. E., Mims, B. H., Pagel, F. T., and Hijazi, K. A. (1983). Anticodon shift in tRNA: a novel mechanism in missense and nonsense suppression. *Proc. Natl. Acad. Sci. USA*, 80: 4936-4939.

Murray, M. G. and Thompson, W. F. (1980). Rapid isolation of high molecular weight plant DNA. *Nucleic Acids Research*, 8: 4321-4325.

Nicholson, L. V., Bushby, K.M., Johnson, M.A., den Dunnen, J.T., Ginjaar, I.B., van Ommen, G.J. (1992). Predicted and observed sizes of dystrophin in some patients with gene deletions that disrupt the open reading frame. *J. Med. Genet.* 29: 892-896.

Oxley, S. M., and Sackstein, R. (1994). Detection of an L-selectin ligand on a hematopoietic progenitor cell line. *Blood*, 84: 3299-3306.

EXAMINER

DATE CONSIDERED

EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

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Payne, G. S., Bishop, J. M., and Varmus, H. E. (1982). Multiple arrangements of viral DNA and an activated host oncogene in bursal lymphomas. *Nature*, 295: 209-214.

Pearson, W. R., and Lipman, D. J. (1988). Improved tools for biological sequence comparison. *Proc. Natl. Acad. Sci. USA*, 85: 2444-2448.

Rabbitts, T. H. (1991). Translocations, Master Genes, and Differences between the Origins of Acute and Chronic Leukemias. *Cell*, 67: 641-644.

Rastinejad, F., and Blau, H. M. (1993). Genetic complementation reveals a novel regulatory role for 3' untranslated regions in growth and differentiation. *Cell*, 72: 903-917.

Rastinejad, F., Conboy, M. J., Rando, T. A., and Blau, H. M. (1993). Tumor suppression by RNA from the 3' untranslated region of alpha-tropomyosin. *Cell*, 75: 1107-1117.

Roberts, R. G., Barby, T. F. M., Manners, E., Bobrow, M., and Bentley, D. R. (1991). Direct detection of dystrophin gene rearrangements by analysis of dystrophin mRNA in peripheral blood lymphocytes. *Am. J. Hum. Genet.*, 49: 298-310.

Rosenstein, Y., Park, J. K., Hahn, W. C., Rosen, F. S., Bierer, B. E. and Burakoff, S. J. (1991). CD43, a molecule defective in Wiskott-Aldrich syndrome, binds ICAM-1. *Nature*, 354: 233-235.

Rowley, J. D. (1995). Chromosome translocations: good genes gone wrong. *Pathol. Biol. Paris*, 43: 197-201.

Sambrook, J., Fritsch, E.F. and Maniatis, T. (1989). Molecular Cloning: A Laboratory Manual. (N. Ford), Cold Spring Harbor Laboratory Press.

EXAMINER	DATE CONSIDERED
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Sandri, G. R., Goldrin, A. L., Levine, M., and Glorioso, J. (1983). High-efficiency transfer of DNA into eukaryotic cells by protoplast fusion. *Methods in Enzymology*, **101**: 402 - 411.

Sanger, F., Nicklen, S., and Coulson, A.R. (1977). DNA sequencing with chain-terminating inhibitors. *Proc. Natl. Acad. Sci. USA*, **74**: 5463 - 5467.

Seed, B. (1987). An LFA-3 cDNA encodes a phospholipid-linked membrane protein homologous to its receptor CD2. *Nature*, **329**: 840-842.

Seed, B., and Aruffo, A. (1987). Molecular cloning of the CD2 antigen, the T-cell erythrocyte receptor, by a rapid immunoselection procedure. *Proc. Natl. Acad. Sci. USA*, **84**: 3365-3369.

Sgroi, D., Nocks, A., and Stamenkovic, I. (1996). A Single N-linked Glycosylation Site Is Implicated in the Regulation of Ligand Recognition by the I-type Lectins CD22 and CD33. *J. Biol. Chem.*, **271**: 18803-18809.

Sheen, J. Y., and Seed, B. (1988). Electrolyte gradient gels for DNA sequencing. *Biotechniques*, **6**: 942-944.

Sherratt, T.G., Vulliamy, T., Dubowitz, V., Sewry, C.A., Strong, P.N. (1993). Exon skipping and translation in patients with frameshift deletions in the dystrophin gene. *Am. J. Hum. Genet.* **53**: 1007-1015.

Simmons, D., and Seed, B. (1988). Isolation of a cDNA encoding CD33, a differentiation antigen of myeloid progenitor cells. *J. Immunol.*, **141**: 2797-2800.

Simmons, D. L. (1993). Cloning cell surface molecules by transient expression in mammalian cells. In *Cellular Interactions in Development--A Practical Approach*, (Oxford: IRL Press), pp. 93-128.

Simmons, D. L., Satterthwaite, A.B., Tenen, D.G., and Seed, B. (1992). Molecular Cloning of a cDNA Encoding CD34, a Sialomucin of Human Hematopoietic Stem Cells. *J. Immunol.*, **148**: 267-271.

Simmons, D. L., and Needham, L., In *Vascular endothelium: Interactions with circulating cells*, (Oxford: Elsevier Science Publishers B.V.), 3-29, 1991).

EXAMINER

DATE CONSIDERED

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EXAMINER

INITIAL

OTHER DOCUMENTS

(Including Author, Title, Date, Pertinent Pages, Etc.)

Smale, S. T., and Baltimore, D. (1989). The "initiator" as a transcription control element. *Cell*, **57**: 103-113.

Southern, E. M. (1975). Detection of specific sequences among DNA fragments separated by gel electrophoresis. *J. Mol. Biol.*, **98**: 503-517.

Staden, R. (1990). Searching for patterns in protein and nucleic acid sequences. *Methods in Enzymology*, **183**: 193-211.

Sussman, D. J., and Milman, G. (1984). Short-term, high-efficiency expression of transfected DNA. *Mol. Cell. Biol.*, **4**: 1641-1643.

Swanson, R., Hoben, P., Sumner, S. M., Uemura, H., Watson, L., and Soll, D. (1988). Accuracy of in vivo aminoacylation requires proper balance of tRNA and aminoacyl-tRNA synthetase. *Science*, **242**: 1548-1551.

Temin, H. (1964). Nature of the provirus of Rous sarcoma. *Natl. Cancer Inst. Monogr.*, **17**: 557-570.

Thomas, M., Shackelford, D., Ralph, S., and Trowbridge, I. (1987). Structural studies of T200 glycoprotein and the IL-2 receptor. *J. Recept. Res.*, **7**: 133-155.

Tuohy, T. M., Thompson, S., Gesteland, R. F., and Atkins, J. F. (1992). Seven, eight and nine-membered anticodon loop mutants of tRNA(2Arg) which cause +1 frameshifting. Tolerance of DHU arm and other secondary mutations. *J. Mol. Biol.*, **228**: 1042-1054.

Varmus, H. E. (1984). The molecular genetics of cellular oncogenes. *Annu. Rev. Genet.*, **18**: 553-612.

Vitelli, L., and Weinberg, E. S. (1983). An inverted sea urchin histone gene sequence with breakpoints between TATA boxes and mRNA cap sites. *Nucleic Acids Res.*, **11**: 2135-2153.

EXAMINER

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DATE

COUNTRY

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SUBCLASS

TRANSLATION

YES NO

EXAMINER

INITIAL

OTHER DOCUMENTS

(Including Author, Title, Date, Pertinent Pages, Etc.)

Weber, J. L. (1990). Human DNA Polymorphisms Based on Length Variations in Simple-sequence Tandem Repeats. In Genetic and Physical Mapping, (Plainview: Cold Spring Harbor Laboratory Press), pp. 159-181.

Weiner, A.M., Deininger, P.L., and Efstratiadis, A. (1986). Nonviral retroposons: genes, pseudogenes, and transposable elements generated by the reverse flow of genetic information. *Ann. Rev. Biochem.* 55: 631-661.

Wheater, P. R., Burkitt, H. G., and, and Daniels, V. G. (1987). Functional Histology. 348. Churchill Livingstone.

Woolf, T. M., Chase, J. M., and Stinchcomb, D. T. (1995). Toward the therapeutic editing of mutated RNA sequences. *Proc. Natl. Acad. Sci. USA*, 92: 8298-8302.

Wysocki, L. J., and Sato, V. L. (1978). "Panning" for lymphocytes: a method for cell selection. *Proc. Natl. Acad. Sci. USA*, 75: 2844-2848.

Yanofsky, C. (1981). Attenuation in the control of expression of bacterial operons. *Nature*, 289: 751-758.

Zhou, D. F., Ding, J. F., Picker, L. J., Bargatze, R. F., Butcher, E. C., and Goeddel, D. V. (1989). Molecular cloning and expression of Pgp-1. The mouse homolog of the human H-CAM (Hermes) lymphocyte homing receptor. *J. Immunol.*, 143: 3390-3395.

EMBL Sequence Database Acc. No. AW385154 (6 Feb. 2000)

EMBL Sequence Database Acc. No. AC006061 (27 Nov. 1998). Nucleotides 91659-91795, page 30.

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